

MIDSTATE AMATEUR RADIO CLUB

MARC

**SPARK
GAP**

"Ham Radio News from Johnson County, Indiana"

VOLUME XIII NO. 03

MARCH 1997

Tornadoes and Donuts

We'll be looking to the skies at the club meeting this Saturday. National Weather Service Meteorologist Mike Rosemark, KA9VMR will be on hand to discuss tornadoes and other severe weather. The March 15th meeting marks the third annual "Bring a Friend" meeting for MARC. If you know of someone who is thinking of becoming a ham or is already a ham but not a club member, then drag them along. Coffee, juice and donuts will be served. --MARC



whistles" to entertain every club member. The DVR (digital voice recorder) will allow voice announcements to be made automatically during the day. We should never miss another meeting or special event for lack of prompting. The Link Controller can be programmed via a modem from a home computer. This will allow the repeater committee to make changes and update autopatch entries instantly. When the controller comes on line later this month a 100 Hz PL-tone will be necessary to access the repeater. Voice announcements will be made on the repeater when use of the PL-tone is necessary. --MARC

Controller installed

The Mid-State ARC has a new "link" to technology. The new Link Club ILC-3 controller was installed in the repeater equipment rack during the first weekend in March. Bill Brinkmann, KA9ZMU has been working to organize the existing wiring and preparing the new controller for operation. The \$1400.00 unit was purchased with a combination of repeater fund donations and regular club dues. Over half of the cost was covered by the special repeater fund. The Link controller features a voice ar, 500 autopatch positions and enough "bells &

Fine tuning helps

Fine tuning audio response has resulted in a cleaner sounding repeater. Following the February meeting Dave Julian, WB9YIG, Bill Brinkmann, KA9ZMU; Club VP George Weimer, KG9HU; and Paul Bohrer, W9DUU put a "Golden Screwdriver" to the machine in an effort to improve the repeater audio and performance. Using special test equipment Paul Bohrer matched the input and output audio. "The high's were de-emphasized," said Bohrer, "creating a flatter response." That's why the repeater sounded tinny, he said. The entire system was re-aligned. "Basically", Bohrer said, "what comes in, goes out." Our thanks to Paul and the other repeater committee members for getting the club machine tuned-up.--MARC

SPARK GAP

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Membership Information

The Mid-State Amateur Radio Club is a Franklin based organization open to all amateur radio operators in central Indiana.

The MARC meets the third Saturday of each month in the training room of the Johnson County Emergency Operations Center at 1100 Hospital Road in Franklin, In.

The MARC operates a 2-meter repeater at 146.835 MHz. Each club member has free access to the repeater and autopatch.

Annual dues are \$18.00. VE Testing follows each meeting from March through November.

Submit stories to the editor on disk or via e-mail by the 3rd of each month.

Send change-of-address information and membership applications to the club treasurer @ MARC President, P.O. Box 836, Franklin, In. 46131.

The Spark Gap is published monthly by the Mid-State ARC.



CLUB OFFICERS

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H. 889-8962

Repeater Trustee:

Dave Julian, WB9YIG

H. 887-9504

Activities:

Jack Parker, NT9J

H. 881-0817

VE Team Coordinator

Dave Wendt, KA9OOH

H. 974-1488

Club Meeting

Saturday March 15th

8 a.m.

VE Testing

EOC 9:15 AM

Remember When?

From April 1987 issue Spark Gap

Dave Wendt, KA9OOH, editor

EDITORIAL Now that Novice Enhancement is here, we can almost certainly expect a lot of new hams on the air, and one of the biggest draws will surely be the voice privileges on 220 MHz. I bought a 220 handheld at Dayton and can access one repeater on the far East Side of Indianapolis, fairly reliably. However, my repeater directory lists only two 220 repeaters in all of Indianapolis which doesn't give Novices too much room when they come "on line".

WELCOME - - TO Bill Brinkmann and Joe Vergara, new members at the April meeting. Both started their ham careers off right by taking my class, and more importantly, by joining the club.

Novice class starts

Over a dozen prospective hams attended the first 1997 Mid-State ARC Novice/Tech class March 3rd. According to head instructor Dave Wendt, KA9OOH most of the students even stayed for the code class. Joe Vergara, KA9ZPA and George Weimer, KG9HU are handling the code sessions this year. Dave says the class is made up of people from as far away as Greencastle and Fortville. The youngest student is a 7-year old girl from Bargarsville. The course is expected to take eight weeks.

DUES Notice

Have you paid your 1997 Dues yet? Just a friendly reminder that the **annual dues** are payable at the March 15th meeting or via snail mail to: **MARC Treasurer P.O. Box 836, Franklin, In. 46131**. If you have not paid your Dues by the end of February 1997, this will be the last issue of Spark Gap you will receive. An \$18.00 activation and processing fee will be charged to any old or new members establishing membership following the February deadline. (sounds like a utility company, doesn't it?) Actually, your total cost is **still only \$18.00**. We appreciate your support and look forward to another exciting year of amateur Radio activities in MARC.

Happy Birthday

Clayton Cooper	KB9NQH	3/27
David Daily	KB9LOT	3/9
James Kerr	AE4UC	3/14
John Welch	N9TBK	3/26
Russell Johnson	N9RJ	3/27
Steven Brown	KB9LDK	3/3



Girl Talk

YL's rejoice. You now have two 2-meter nets to talk on. The Boone County YL Net meets each Tuesday evening at 8 PM (2000 hrs UTC) on the 147.105 MHz repeater. Diana Stuckey, KB9NPO runs the net and encourages the YL's to talk about something besides transistors, resistors and hamfests. The machine uses a 77 hz PL-tone. On a larger scale, the Buckeye Belles Net is looking for a few good women, too. It meets at 9 PM each Tuesday evening on the FARA machine, 145.19 MHz. This is an opportunity to talk via 2-meters with women around the Tri-State area. According to one local source, it's like a modern day wireless party-line.

Test fee increase

The cost of testing for an Amateur Radio license has increased effective February 1, 1997. According to the ARRL, VE's at ARRL/VEC-coordinated test sessions will be charging \$6.25 (up from \$6.05 in 1996). No fee will be charged for a person taking only Elements 1A and/or Element 2--(an ARRL/VEC policy). An additional \$6.25 will be charged for each retest. --ARRL Bulletin

Phase 3D nears launch

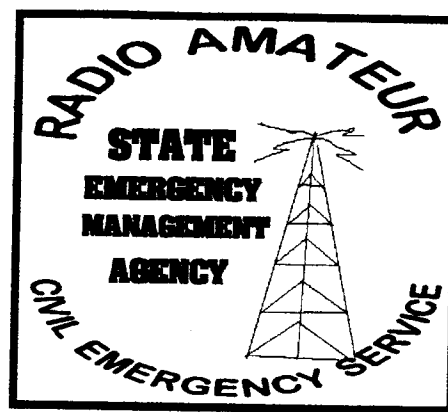
AMSAT-NA Phase 3D fund-raising campaign is at minus 150,000 dollar(s) and counting--and that's assuming the launch goes off on schedule this summer. At the end of 1996, AMSAT-NA figured it needed another 200,000 dollar(s) to finish the project. The latest AMSAT-NA fund campaign has, so far, netted an additional 50,000, dollar(s) according to AMSAT-NA Executive Vice President Keith Baker, KB1SF. "Barring unforeseen problems from now until launch, and assuming the early July launchdate holds, that puts us still short of funds by about 150,000," Baker dollar(s) said this week. "We're still not out of the woods yet, but we're getting close."

But the AMSAT-NA shortfall is only part of the total Phase 3D funding picture. Baker also says that AMSAT-DL (Germany)--which, so far, has invested nearly 2 dollar(s) million in Phase 3D compared to nearly 1 dollar(s).4 million for AMSAT-NA--reports it still needs in the vicinity of 100,000 dollar(s) to complete its share of the Phase 3D effort. Baker said AMSAT is on target to meet the July 8 or July 9 schedule, which is still the official European Space Agency launch date for the Ariane 502 rocket. AMSAT anticipates the satellite will be shipped to Kourou, French Guyana, sometime in early May for final checkout before the mid-July launch -- *Newsline '97*

Fishers firm fined

The FCC has upheld a stiff fine against Ace Communications of Fishers, Indiana, for illegally selling scanners that were not FCC-certified and that could receive cellular telephone frequencies. The FCC's Compliance and Information Bureau issued the \$20,000 Notice of Forfeiture February 5, 1997, for "willful and repeated violation of Section 302(b) of the Communications Act of 1934, as amended, and repeated violation of Section 302(b) of the Act and Section 2.803 of the Commission's rules. Specifically, the FCC cited the company for "advertising and selling two different scanners without first obtaining an equipment authorization." The FCC complaint involved the Yupiteru MVT-7100 and the Trident TR-2400 scanners. The Commission said it would not have issued an equipment authorization because the scanners in question "were capable of tuning into frequencies assigned to the cellular telephone service."

Ace had advertised one of the scanners in Amateur Radio publications in 1993, but none of the ads ever ran in QST. The FCC also rejected all arguments to reduce the fine or dismiss the Notice of Apparent Liability. --FCC --*ARRL Bulletin*



Hams needed for flood

The worst flooding since 1964 caused Indiana Governor Frank O'Bannon to declare a state of emergency for ten southeastern Indiana counties last week. That action prompted a need for Amateur Radio communications for the affected areas along the Ohio river. In an effort to organize the necessary communications manpower State RACES director David Crockett, WA9ZCE called upon the Johnson county RACES organization to help with the disaster.

According to county RACES director Rich Jasinski, KB9LJM, the response to the "call-up" was less than adequate. Only a couple of people out of a roster of 42-members were available to participate in the communications effort. Rich said many of the RACES members were willing to help, but were unavailable due to work schedules and family commitments.

In an effort to better organize the RACES response, Rich is asking that each RACES member attend a short meeting in the EOC radio room following the MARC meeting March 15th. A phone roster and questionnaire is included with this edition of the Spark Gap. --MARC

Hams help fire victims

Monroe County, Michigan, ARES turned out February 7 to support the local Red Cross chapter in the wake of a major fire in a 54 unit apartment building affecting 49 families--some 18 months after turning out to help the Red Cross following a major fire in the same building. The building was destroyed in the later blaze.

Hams provided communication to support mass care and feeding efforts, including feeding the scores of firefighters at the scene and providing food, temporary shelter, and basic needs to fire victims. Eight hams pitched in during the day-long operation. --Dale Williams, WA8EFK --*ARRL Bulletin*

Windtrax '97 Launch's set

Blue skies and warmer temperatures will soon herald another season of High Altitude Balloon Experiments in Indiana. The following schedule indicates the basic number of balloon flights already slated for 1997. The months of April, May, July, August and October are open to additional activity. A spring launch involving the Mid-State ARC is being considered. Stay tuned for more information.

05 April **North Putnam Co.**
Bainbridge, In.

14 June **Challenger Center**
Brownsburg, In

13 Sept **Eastern Elementary**
Greentown, In

27 Sept **New Augusta Public**
Academy
NW-Indy

LEOs continue threat

Commercial satellite interests seeking access to bands below 1 GHz including amateur allocations at 146 and 430 MHz now have added 220 MHz to their wish list. For the first time, Little LEO (low-earth orbiting satellite) interests have proposed including 219-225 MHz in their list of desired allocations for the nonvoice, non-geostationary (NVNG) mobile-satellite service (MSS). The move was contained in the industry's so called flexible allocation proposal, delivered at the February 13, 1997, meeting of FCC Informal Working Group (IWG) 2A. Little LEO targets now include 146 to 148, 219 to 225 and 430 to 450 MHz. The ARRL and AMSAT were among those objecting to the concept, and the League is urging those who agree with their position to comment to the FCC. The League and AMSAT pointed out that the little LEO proponents have



Celphone Warning

In the wake of the Newt Gingrich cellular telephone taping incident, the FCC has made it clear that it's illegal for manufacturers or dealers to modify scanning receivers to enable reception on cellular telephone frequencies. A Public Notice, DA 97-334, issued February 13, declares that scanner modification is included in the ban on manufacturing cellular-ready scanners.

The notice comes as members of Congress raised concerns over the widely publicized incident where a cellular telephone conversation of House Speaker Newt Gingrich was intercepted and taped and its contents ended up on the pages of the New York Times. A House subcommittee hearing on cellular telephone privacy that also stemmed from the Gingrich cellular taping and disclosure also addressed the issue earlier this month.

Among those testifying before the Subcommittee on Telecommunications, Trade and Consumer Protection was Bob Grove of Grove Enterprises (and Monitoring Times), who tried to argue that a legal loophole allowed him to sell and then retrofit scanners to pick up cellular conversations. Other testimony focused on the low priority that Congress has placed on prosecution of cellular eavesdropping cases. --FCC/Steve Mansfield, N1MZA

LEO threat continued

had more than a year to complete a technical study of the possibilities of sharing with the amateur services in the 144 to 148 MHz and 420 to 450 MHz bands. They have not demonstrated compatibility for sharing these amateur bands but over the evolution of their document have proposed various new ideas for use of these bands. The little LEO flexible allocation strategy for WRC97 submitted as IWG2A/86 (Rev. 6) is to propose broad allocations.

Anyone wishing to register support for the ARRL/AMSAT submission should send a brief e-mail message to wrc97@fcc.gov. The subject line should say Reference No. ISP-96-005 IWG 2A. A simple statement to this effect, I support the ARRL/AMSAT opposition to the NVNG MSS flexible allocation proposal, will be included in the public record and will help to drive home the point that there is broad based opposition to poorly conceived sharing proposals. ARRL

Spread spectrum proposed

Amateur Radio may soon use spread spectrum technology to better utilize available frequencies. Following a request from ARRL, the FCC has proposed a change in its Amateur Service rules governing spread spectrum. In spread spectrum the energy of the transmitted signal is distributed among several synchronized frequencies within a band and reassembled at the receiving end. This reduces power density and duration of a transmission on a particular frequency and lets spread spectrum almost invisibly share the same spectrum with users of other, narrowband modes.

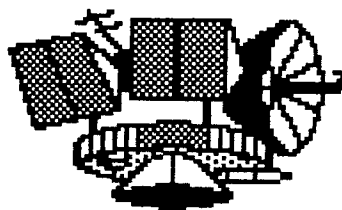
Overcomes poor conditions

Spread spectrum also provides for improved communication under poor signal-to-noise conditions and in selective fading and multipath environments, and the ability to accommodate more communication channels operating simultaneously in the same spectrum.

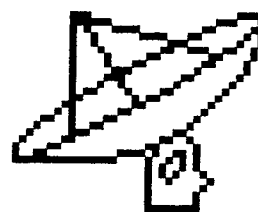
The League's December 1995 petition asked the FCC to relax its rules to give Amateur Radio more opportunities to contribute to the development of spread spectrum techniques. Specifically, the League sought to have the FCC relax restrictions on spreading sequences and asked for greater flexibility in spreading modulation. In response, the FCC now has proposed to drop rules restricting amateur stations to transmitting only frequency-hopping and direct-sequencing spreading techniques.

Domestic testing only

The current rules allow only domestic communication. Since spread spectrum was introduced in the Amateur Radio service, commercial spread spectrum applications have been developed, including personal communication services, remote meter reading and position locating. No changes are proposed in the frequency bands where spread spectrum is permitted. The FCC said the rule amendments would "increase spectrum efficiency and allow amateur operators to contribute to technological advances." --ARRL Bulletin



Lucid plugs Amateur Radio



NASA Mission Specialist Shannon Lucid, who used the Mir Amateur Radio equipment during her six-month stay aboard the Russian space station doesn't have her ham license--yet. But she used ham radio aboard Mir and said some very nice things about Amateur Radio during her several NASA post-flight press conferences. She spoke about how great it was to QSO her daughter, KC5UAR, and son-in-law, KC5UAQ. She spoke about how some of her fellow astronauts often went to Johnson Space Center's ham station, W5RRR, to speak to her. She also mentioned that K4GCC at Kennedy Space Center, phone-patched the NASA commentary of the STS-79 launch (the mission that brought her back home) to Mir. She also discussed the ham radio activities Mission Specialist Jay Apt, N5QWL.-Rosalie White, WA1STO --ARRL Bulletin

Russian satellite launched

According to sources at AMSAT, a new Russian Amateur Radio satellite, designated RS-16, has been launched from the Svobodny Cosmodrome as part of a Zeya satellite package. RS-16 reportedly has an average orbital altitude of 276 miles, producing a footprint some 2000 miles in diameter on Earth. On March 4, 1997, 1614 UTC, Jim White, WD0E, reported hearing strong signals from the RS-16 CW beacon on 29.408 MHz. Others in the US and Europe have reported strong signals on 10 meters. The transponders are not yet active. The twice-delayed launch had been expected as early as December. RS-16 is expected to be a Mode A (2 meters up/10 meters down) satellite, like RS-10 and RS-15. It's the first Russian satellite to have a 70-cm beacon, but the beacon there is not yet operational. Beacon frequencies are 29.408, 29.451, 435.504 and 435.548 MHz. Orbital elements and additional information will be announced as they become available. --ARRL Bulletin

Did you notice...

--Front page photo and story about Joe Rogers, KF9LQ in the March 1st edition of the Daily Journal. Mid-State ARC was prominently mentioned as well as great quotes from Dave Wendt, KA9OOH and Joan Kemp, N9DON.

--Great audio on the repeater. Special THANKS to Paul Bohrer, W9DUU for making a special trip to Franklin to fine tune the repeater.

--Excellent rating given to the club newsletter. The "Spark Gap" was cited for *excellence* in writing, layout and overall quality by the Amateur Radio News Service, (ARNS). The eight page publication was one of over 100 entries submitted for judging.

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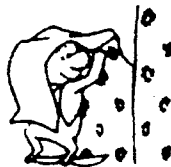
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APRS system expanded

Hams involved with APRS and GPS are being asked to contribute to a federal study into the benefits of establishing a national differential global positioning system radio beacon service. The U.S. Coast Guard and the U.S. Army Corps of Engineers are setting up to provide DGPS signals in coastal areas and along navigable waterways. Terrestrial DGPS signals in the 285 to 325 kHz spectrum complement satellite GPS data by increasing their accuracy. Ted Pugh is with PB Farradyne Inc. That's the story studying the benefits and feasibility of setting up an inland DGPS system. Pugh says he wants to hear from the amateur community about its use of GPS and APRS in public safety applications, and how DGPS might help.

--Newsline '97

